

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

Claims 1-39 (Cancelled).

40. (Currently Amended) A solid oxide fuel cell comprising a cathode, an anode and at least one electrolyte membrane disposed between said anode and said cathode, wherein said anode comprises a cermet comprising a metallic portion and an electrolyte ceramic material portion, said portions being substantially uniformly interdispersed, said metallic portion having a melting point equal to or lower than 1200°C; said cermet having a ~~metal~~ metallic portion content higher than 50 wt%, and a specific surface area equal to or lower than 5 m²/g.

41. (Previously Presented) The solid oxide fuel cell according to claim 40, wherein the metallic portion is selected from a single metal selected from copper, aluminum, gold, praseodymium, ytterbium, cerium, and alloys comprising one or more thereof.

42. (Previously Presented) The solid oxide fuel cell according to claim 41, wherein the metallic portion is copper.

43. (Previously Presented) The solid oxide fuel cell according to claim 40, wherein the metallic portion has a melting point higher than 500°C.

44. (Currently Amended) The solid oxide fuel cell according to claim 40, wherein the ~~metal content~~ metallic portion is 60 wt% to 90 wt%.

45. (Previously Presented) The solid oxide fuel cell according to claim 40, wherein the cermet has a specific surface area equal to or lower than 2 m²/g.

46. (Previously Presented) The solid oxide fuel cell according to claim 40, wherein the cermet has a porosity equal to or higher than 40%.

47. (Currently Amended) The solid oxide fuel cell according to claim 40, wherein the ~~ceramic material electrolyte ceramic material portion~~ has a specific conductivity equal to or higher than 0.01 S/cm at 650°C.

48. (Currently Amended) The solid oxide fuel cell according to claim 47, wherein the ~~ceramic material electrolyte ceramic material portion~~ is selected from doped ceria and La_{1-x}Sr_xGa_{1-y}Mg_yO_{3-δ} wherein x and y are 0 to 0.7 and δ is from stoichiometry.

49. (Previously Presented) The solid oxide fuel cell according to claim 48, wherein ceria is doped with gadolinia or samaria.

50. (Withdrawn) The solid oxide fuel cell according to claim 40, wherein the ceramic material is yttria-stabilized zirconia.

51. (Previously Presented) The solid oxide fuel cell according to claim 40, wherein the cathode comprises a metal selected from platinum, silver, gold and mixtures thereof, and an oxide of a rare earth element.

52. (Withdrawn) The solid oxide fuel cell according to claim 40, wherein the cathode comprises a ceramic selected from La_{1-x}Sr_xMnO_{3-δ}, wherein x and y are independently equal to 0 to 1, and δ is from stoichiometry; and

$\text{La}_{1-x}\text{Sr}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_{3-\delta}$, wherein x and y are independently equal to 0 to 1, and δ is from stoichiometry.

53. (Withdrawn) The solid oxide fuel cell according to claim 52, wherein the cathode comprises doped ceria.

54. (Withdrawn) The solid oxide fuel cell according to claim 40, wherein the cathode comprises a combination of materials comprising a metal selected from platinum, silver, gold and mixtures thereof, and an oxide of a rare earth element and a ceramic selected from

$\text{La}_{1-x}\text{Sr}_x\text{MnO}_{3-\delta}$, wherein x and y are independently equal to 0 to 1, and δ is from stoichiometry; and

$\text{La}_{1-x}\text{Sr}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_{3-\delta}$, wherein x and y are independently equal to 0 to 1, and δ is from stoichiometry.

55. (Previously Presented) The solid oxide fuel cell according to claim 40, wherein the electrolyte membrane is selected from yttria-stabilized zirconia, $\text{La}_{1-x}\text{Sr}_x\text{Ga}_{1-y}\text{Mg}_y\text{O}_{3-\delta}$ wherein x and y are 0 to 0.7, and δ is from stoichiometry, and doped ceria.

56-77. (Cancelled)

78. (Currently Amended) A cermet including a metallic portion and an electrolyte ceramic material portion, said portions being substantially uniformly interdispersed, said metallic portion having a melting point equal to or lower than 1200°C; said cermet having a ~~metal content~~ metallic portion higher than 50 wt% and a specific surface area equal to or lower than 5 m²/g.